NMD can be recommended when eight sub-scales are used and reported. The suggestion that the SF-36 can be utilized as a two-sub-scale measure of physical health and mental health components in this clinical group, however, was not supported because of model fit limitations.

PND49

MEASUREMENT CHARACTERISTICS OF THE SF-36 IN PARKINSON'S DISEASE

Banks P[1], Martin CR[2]
[1]University of the West of Scotland, Hamilton, UK, [2]University of the West of Scotland, Ayr, UK

OBJECTIVES: Quality of life (QoL) is an important psychological dimension in patients with Parkinson's disease (PD). The factor structure of the SF-36 in patients with PD was investigated to determine how this measure might best be used to assess QoL in this clinical population. **METHODS:** Confirmatory factor analyses were conducted on self-report SF-36 data from 339 individuals diagnosed with PD. Six structural models of the SF-36 were evaluated against data. **RESULTS:** The underlying factor structure of the SF-36 in PD was found to be inconsistent with the assumed measurement model of SF-36 but consistent with contemporary theoretical models of the instrument. **CONCLUSIONS:** The use of the SF-36 in individuals with PD can be recommended when eight subscales are used and reported. The use of the instrument as a two-subscale measure of physical health and mental health components, however, was not found.

PND50

UNDERSTANDING HEALTH RELATED QUALITY OF LIFE CHANGES AND ISSUES RELATED TO DISEASE MODIFYING DRUGS AMONG MULTIPLE SCLEROSIS PATIENTS: A QUALITATIVE STUDY

Bhanegaonkar A[1], Madhavan S[1], Pawar GV[1], Rajagopalan K[2], Langlois J[3]
[1]West Virginia University, Morgantown, WV, USA, [2]Biogen Idec, Wellesley, MA, USA, [3]JKL Research Associates, Tampa, FL, USA

OBJECTIVES: The purpose of this study was to investigate changes in health related quality of life (HRQOL) experienced by patients with multiple sclerosis (MS) and to determine their experiences, opinions, and expectations related to disease modifying drugs (DMDs) used in MS. **METHODS:** A sample of 18 individuals with confirmed diagnosis of MS was recruited through a university hospital-based neurology clinic. Four focus group (FG) sessions involving semi-structured interviews were conducted. The FG discussions were audio-recorded and were later transcribed for coding purpose. Qualitative content analysis of transcribed data was performed by two blinded reviewers using QSR NVivo 8 software. The data were coded into specific themes as per the research questions. **RESULTS:** Qualitative analysis indicated twelve major themes related to HRQOL associated with the disease condition and experiences with the DMDs used to treat MS: (1) HRQOL before the diagnosis of MS; (2) HRQOL after the diagnosis of MS; (3) Coping with MS; (4) Opinions regarding the current DMDs; (5) Clinical benefits; (6) Adverse events associated with the DMDs; (7) Side effects associated with DMDs; (8) Treatment adherence; (9) Convenience of DMD administration; (10) Treatment satisfaction; (11) Expectations from the future DMDs; and (12) Cost associated with DMDs. HRQOL in social, physical, and psychological domains declined considerably among all participants since the diagnosis of MS. Participants were content with clinical benefits associated with DMDs they were currently taking. Future DMDs were expected to be safer and easier to administer. **CONCLUSIONS:** This study provides an in-depth understanding of the various factors that affect HRQOL of patients living with MS and the characteristics of DMDs that are of most value to MS patients. Study results support the need to determine patient preferences for specific adverse events associated with DMDs against the clinical benefits in order to improve adherence with DMDs and consequent outcomes.

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THE EFFECT OF THE MEDICARE PART D COVERAGE GAP AND OUT-OF-POCKET BURDEN ON THE USE OF DISEASE MODIFYING DRUGS TO TREAT MULTIPLE SCLEROSIS

Banahan BFI[1], Datar M[1], Mendonca CM[1], Shahpurwala Z[1], Bentley JP[1], Phillips AL[2], Stewart M[3]
[1]University of Mississippi, University, MS, USA, [2]EMD Serono, Inc., Rockland, MA, USA, [3]Pfizer, Inc., New London, CT, USA

OBJECTIVES: To assess the impact of the Medicare Part D coverage gap and co-pay levels on medication utilization behaviors among beneficiaries taking disease modifying drugs (DMDs) for the treatment of multiple sclerosis (MS). **METHODS:** A retrospective cohort study was conducted using a 5% national sample of Medicare beneficiaries for 2007. Ambulatory patients diagnosed with MS and taking at least one DMD were included. Adherence was measured using proportion of days covered (PDC). Patients were classified as discontinuing therapy if last day of possession was more than 60 days before the end of the year. Low income subsidy (LIS) status was used as a measure of out-of-pocket burden. **RESULTS:** 1,439 beneficiaries with MS and DMD use were identified. 89% reached the coverage gap and 81% reached catastrophic coverage. Average time in gap was 2 to 4 months for the different copay groups. Overall PDC measures were 85.7% pre-gap, 81.7% during gap, and 87.3% in catastrophic coverage. PDC for full year was higher ($p<0.001$) for no-copay LIS (90.2%) than for reduced-copay LIS (83.7%) and full-copay (79.8%) beneficiaries. Full-copay beneficiaries were slightly more likely to stop therapy after hitting the gap than were reduced-copay or no-copay beneficiaries (17.7%, 15.0%, 10.6%). Full-copay beneficiaries were more likely ($p<0.001$) than reduced-copay or no-copay beneficiaries to have a drop in PDC during the coverage gap (46.3%, 28.2%, 18.1%). **CONCLUSIONS:** Most beneficiaries with MS reach the coverage gap early in the year and fairly quickly move to catastrophic coverage. Average time in the coverage gap is limited, but significantly reduces adherence. Higher out-of-pocket burden is also associated with a reduction in adherence.

PND52

HEALTH CARE RESOURCE UTILIZATION BEFORE AND AFTER INITIATION OF ARMODAFINIL TREATMENT FOR WAKEFULNESS

Carlton R[1], Regan TS[1], Lunacsek O[1], Dammerman R[2]
[1]Xcenda, LLC., Palm Harbor, FL, USA, [2]Cephalon, Inc., Frazer, PA, USA

OBJECTIVES: Once-daily armodafinil significantly improves wakefulness in patients with excessive sleepiness due to shift work disorder (SWD), treated obstructive sleep apnea (OSA), or narcolepsy. The objective of the current analysis was to examine resource utilization by patients who received armodafinil for these FDA-approved indications. **METHODS:** Data were collected from the IMS LifeLink Database (December 2008 to March 2010) and contained longitudinal patient data from medical claims (diagnostic/therapeutic services), pharmacy claims (prescriptions), and eligibility files (demographics and enrollment). Patients were identified and healthcare utilization data were collected for 6 months before and up to 10 months after their first armodafinil pharmacy claim. Healthcare costs and visits before and after initiation of armodafinil were statistically analyzed using paired t-tests. **RESULTS:** 1,282 patients were included (4.5% SWD; 85.9% OSA; 20.4% narcolepsy). The mean monthly healthcare cost for patients prior to taking armodafinil was $1,562.99 (pharmacy $432.26; medical $1,130.73). After armodafinil initiation, overall monthly cost decreased to $1,438.11 ($p=0.0588$). Armodafinil significantly increased prescription costs by $138.53/month ($p<0.0001$) but decreased medical costs by $263.41/month ($p<0.0001$). Medical costs were decreased by $133.23 for physician costs ($p<0.0001$) and $75.62 for outpatient costs ($p=0.0039$). Emergency room costs were lower by $3.99/month (NS), and inpatient costs were lower by $7.51/month (NS). The number of inpatient visits were reduced by 0.21/year ($p=0.0307$), physician visits by 4.91/year ($p<0.0001$), and outpatient visits by 0.89/year ($p<0.0001$). **CONCLUSIONS:** After armodafinil treatment, reductions were seen in healthcare utilization and costs compared to the pre-armodafinil period. As expected, total prescription costs were greater following initiation of armodafinil therapy; however, lower total monthly costs were observed with armodafinil because use of medical resources decreased. This significant reduction in medical resource utilization appeared to be driven predominantly by fewer physician visits and lower outpatient costs. This research was sponsored by and conducted in collaboration with Cephalon, Inc., Frazer, PA.

PND53

UNCONTROLLED EPILEPSY IN A MEDICAID POPULATION

Paradis PE[1], Manjunath R[2], Duh MS[3], Lafeuille MH[1], Mishagina N[1], Parisé H[1], Rovba L[1], Lefebvre P[1], Faught E[4]
[1]Groupe d'analyse, Ltée, Montréal, QC, Canada, [2]GlaxoSmithKline, Research Triangle Park, NC, USA, [3]Analysis Group, Inc., Boston, MA, USA, [4]Emory University, Atlanta, GA, USA

OBJECTIVES: Uncontrolled epilepsy is associated with devastating injuries, neuropsychiatric impairment, and increased mortality based on clinical observations. The purpose of this study is to evaluate the clinical and economic burden of uncontrolled epilepsy in a Medicaid population. **METHODS:** Medical and pharmacy claims from Florida (1997Q3-2008Q2), Iowa (1998Q1-2006Q2), Kansas (2001Q1-2009Q2), Missouri (1997Q1-2008Q2), and New Jersey (1997Q1-2008Q4) Medicaid databases were analyzed. Patients ≥18 years with epilepsy and receiving antiepileptic drugs (AEDs) were selected. A retrospective matched-cohort design was used to classify patients into mutually-exclusive cohorts of "uncontrolled" (≥2 consecutive AED changes followed by ≥1 epilepsy-related inpatient/ER visit), "well-controlled" (no AED change and no epilepsy-related inpatient/ER visit) and "intermediate" (neither "uncontrolled" nor "well-controlled") epilepsy. Patients with uncontrolled epilepsy were matched 1:1 with those with well-controlled and intermediate epilepsy, respectively, using propensity score matching. Matched cohorts were compared for health care resource utilization, occurrence of negative clinical events, and direct health care costs. Statistical differences between cohorts were assessed using multivariate conditional regression models, adjusted for demographics, treatment characteristics, and comorbidities. **RESULTS:** Uncontrolled epilepsy was associated with significantly higher health care resource utilization (adjusted rate ratios [ARRs] [95% confidence intervals (95%CIs)]: hospitalizations=6.65 [6.41-6.90], length of hospital stays=7.72 [7.60-7.84], emergency-room visits=3.67 [3.61-3.74], outpatient visits=3.85 [3.77-3.93]) versus well-controlled epilepsy. Morbidity occurred more frequently in the uncontrolled group (ARRs: fractures: 2.16 [2.07-2.26], motor vehicle accident-related injuries: 2.45 [1.77-3.40], head injuries: 2.09 [2.04-2.14], status epilepticus events: 9.71 [8.20-11.50]) relative to well-controlled patients. Patients with uncontrolled epilepsy also incurred higher health care costs (adjusted cost difference [95%CI]=$12,258 [$10,482-$14,083] per patient per year), of which hospitalization costs represented 46.3%. Results were similar when compared to intermediate epilepsy. **CONCLUSIONS:** Uncontrolled epilepsy was associated with significantly greater health care resource utilization, higher rates of morbidity, and higher medical costs compared to well-controlled and intermediate epilepsy.

PND54

RETROSPECTIVE DATABASE ANALYSIS OF FREQUENCY AND COSTS OF RELAPSES AMONG MULTIPLE SCLEROSIS PATIENTS

Boklage S, Preblick R, Yaldo A, Golick M, Pocoski J
Bayer HealthCare Pharmaceuticals, Inc., Wayne, NJ, USA

OBJECTIVES: Identify the frequency, severity, and cost of relapses among a multiple sclerosis (MS) population. **METHODS:** Data was assessed from MarketScan® Research Database. Patients at least 18 years old with MS, defined at least 2 outpa-